

INTERNATIONAL SEARCH REPORT

 International application No.
 PCT/JP03/04038

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.⁷ H01M4/06, 4/50, 6/16, 4/02, 4/58, 10/40

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.⁷ H01M4/06, 4/50, 6/16, 4/02, 4/58, 10/40

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 58-218755 A (Yuasa Battery Co., Ltd.), 20 December, 1983 (20.12.83), Page 1, lower left column, lines 4 to 8; page 2, upper left column, line 2 to lower right column, line 5 (Family: none)	1
X	JP 63-24301 B2 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.), 20 May, 1988 (20.05.88), Page 1, column 1, lines 1 to 21 & EP 33853 A2 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.), 19 August, 1981 (19.08.81), Claims 1 to 6 & US 4336315 A1	1

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not

considered to be of particular relevance

"E" earlier document but published on or after the international filing

date

"L" document which may throw doubts on priority claim(s) or which is

cited to establish the publication date of another citation or other

special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other

means

"P" document published prior to the international filing date but later

than the priority date claimed

"T" later document published after the international filing date or

priority date and not in conflict with the application but cited to

understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be

considered novel or cannot be considered to involve an inventive

step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be

considered to involve an inventive step when the document is

combined with one or more other such documents, such

combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search
07 July, 2003 (07.07.03)Date of mailing of the international search report
22 July, 2003 (22.07.03)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:

because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:

because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

(See extra sheet)

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim No.: 1

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

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Continuation of Box No.II of continuation of first sheet(1)

In order for the group of inventions claimed in the claims to satisfy the requirement of unity of invention, there must be "special technical features" which link the group of inventions so as to form a single general inventive concept.

The technical features recited in claims 1-3 and 7 cannot be "special technical features" since, for example, prior art reference JP 58-218755 A (Yuasa Battery Co., Ltd.) 1983. 12. 20 at claims and lower column of page 2 teaches an organic electrolyte battery including a positive electrode containing manganese dioxide as an active substance to which 0.1 to 6 wt.% of calcium oxide has been added and JP 63-24301 B2 (Matsushita Electric Industrial Co., Ltd.) 1988. 05. 20 at claims teaches an organic electrolyte battery including a positive electrode containing manganese dioxide as an active substance into which a given amount of alkaline earth metal oxide has been mixed.

The technical features recited in claims 14-15 and 20 cannot be "special technical features" since, for example, prior art reference JP 8-102332 A (Hitachi, Ltd.) 1996. 04. 16 at claims and Example 1 teaches a nonaqueous electrolyte secondary battery including a positive electrode comprising lithium cobaltate and, added thereto, calcium oxide.

Further, the technical features recited in claims 14-16 and 20 cannot be "special technical features" since, for example, prior art reference JP 7-153496 A (Hival Ltd.) 1995. 06. 16 at claims and Examples teaches a nonaqueous electrolyte secondary battery including a positive electrode comprising 87 pts.wt. of lithium manganate mixed with 2 pts.wt. of barium oxide or the like.

Therefore, "special technical features" do not exist in the claims 1 to 26, and hence it appears that the claims of this application comprehend 12 inventions to be divided into claims 1, 2, 3, 4-6, 7, 8-13, 14, 15, 16, 17-19, 20 and 21-26.